Base cabinet

Overall size: 24" W × 24" D × 34-1/2" H



Parts	Sheets and boards	Saw kerf	Units
17 (14 different)	**5**	**1/8"**	**Inches**

Materials to buy

Qty	Material	Label in plan
1	1/2" Baltic Birch Plywood, 5' × 5'	Sheet A
1	1/4" Baltic Birch Plywood, 5' × 5'	Sheet B
1	3/4" Birch Plywood, 4' × 8'	Sheet C
1	1/4" Birch Plywood, 4' × 8'	Sheet E
1	Drawer slides, 22" (559 mm), full-extension, side-mount (pair)	Hardware
2	Hinges, 35 mm cup, full overlay, soft-close	Hardware
2	Knobs	Hardware
18	Kreg pocket screws 1-1/4" coarse thread	Hardware

Qty	Material	Label in plan
4	Shelf pins 1/4"	Hardware

Cost

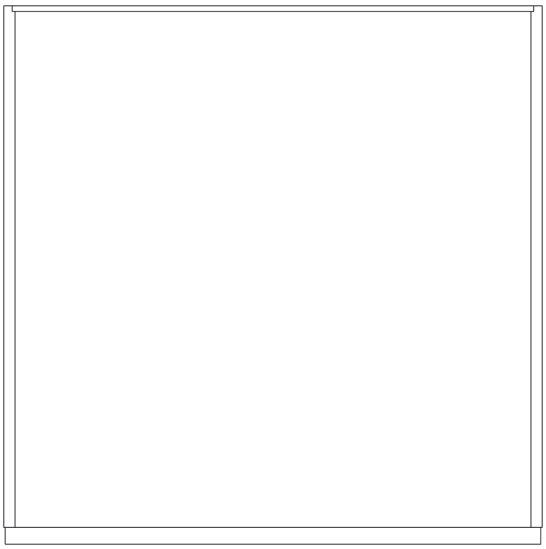
In USD, at this project's prices

Qty	Item	Price	Per	Total
1	1/2" Baltic Birch Plywood, 5' × 5'	$84.00	a sheet	$84.00
1	1/4" Baltic Birch Plywood, 5' × 5'	$63.00	a sheet	$63.00
1	3/4" Birch Plywood, 4' × 8'	$75.00	a sheet	$75.00
1	1/4" Birch Plywood, 4' × 8'	$45.00	a sheet	$45.00
1	Drawer slides, 22" (559 mm), full-extension, side-mount (pair)	$20.00	each	$20.00
2	Hinges, 35 mm cup, full overlay, soft-close	$4.00	each	$8.00
2	Knobs	$3.00	each	$6.00
18	Kreg pocket screws 1-1/4" coarse thread	$0.08	each	$1.44
4	Shelf pins 1/4"	$0.15	each	$0.60
Wood				**$267.00**
Hardware				**$36.04**
Total				**$303.04**
$180.24 of the wood is offcuts and kerf (68%), counted in Wood above.				
One piece from My shop's stock costs nothing.				

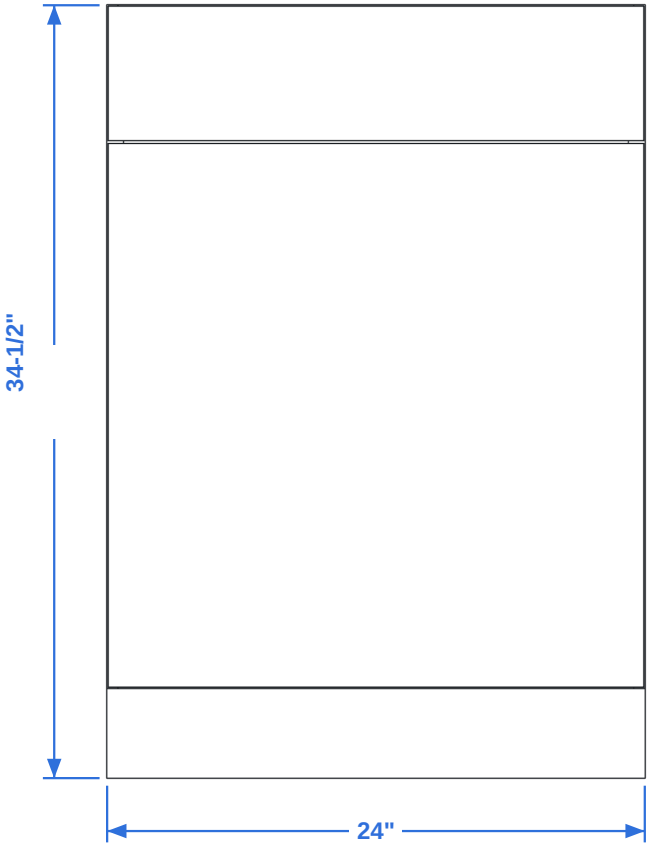
Views

Use the written dimensions; don't scale the drawing.

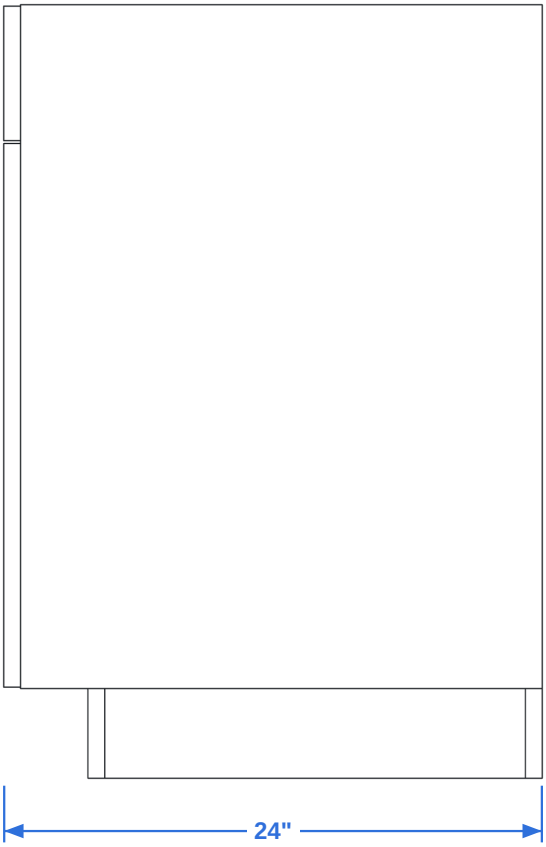
Top



Front

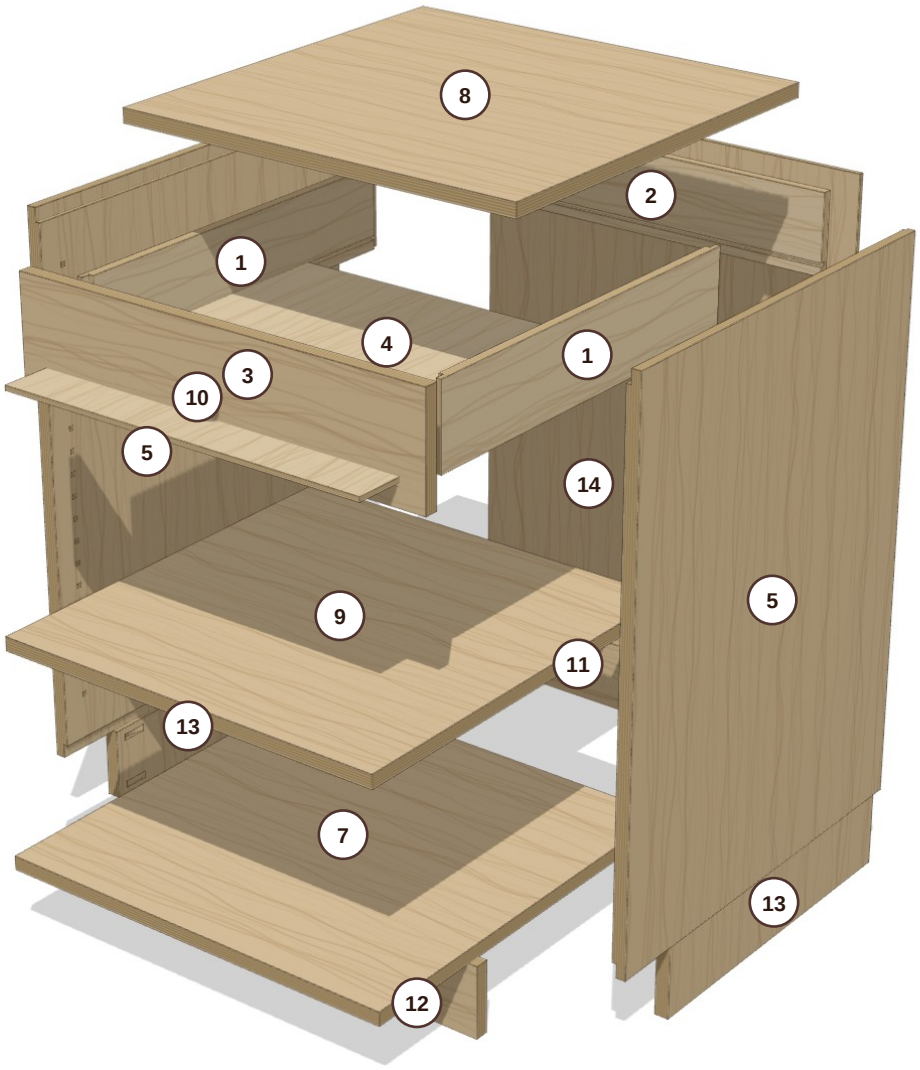


Right side



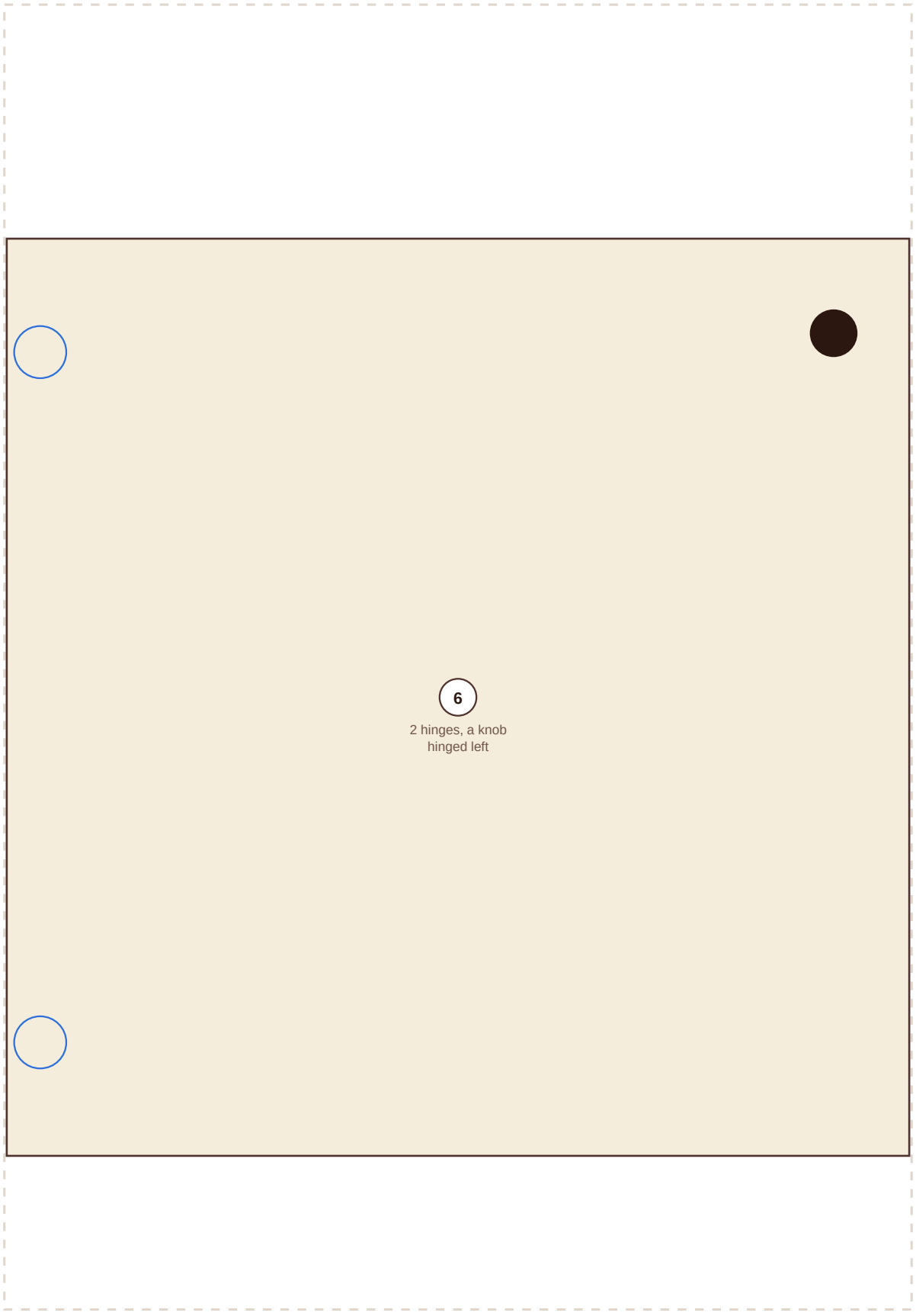
Exploded view: the carcase

Every part by its number in the cut list



Exploded view: doors and hardware

Seen from the front, spread apart



Cut list

Length runs with the grain unless Grain says otherwise

#	Part	Qty	Length	Width	Thick	Material	From	Grain
1	Base drawer box side	2	22"	4-1/2"	1/2"	Baltic Birch Plywood	A	Length
2	Base drawer box back	1	21"	4-1/2"	1/2"	Baltic Birch Plywood	A	Length
3	Base drawer box front	1	21"	4-1/2"	1/2"	Baltic Birch Plywood	A	Length
4	Base drawer box bottom	1	21"	21-1/2"	1/4"	Baltic Birch Plywood	B	Width (turned)
5	Base side	2	30-1/2"	23-1/4"	3/4"	Birch Plywood	C	Length
6	Base door	1	24-1/4"	23-7/8"	3/4"	Birch Plywood	C	Length, keep
7	Base bottom	1	23"	23"	3/4"	Birch Plywood	C	Length
8	Base top	1	23"	23"	3/4"	Birch Plywood	C	Length
9	Base shelf	1	22-7/16"	23"	3/4"	Birch Plywood	C	Length
10	Base drawer front	1	23-7/8"	6"	3/4"	Birch Plywood	C	Length, keep
11	Base toe-kick back rail	1	24"	4"	3/4"	Birch Plywood	D	Length
12	Base toe-kick front rail	1	24"	4"	3/4"	Birch Plywood	D	Length
13	Base toe-kick cross rail	2	18-3/4"	4"	3/4"	Birch Plywood	C	Width (turned)
14	Base back	1	30-1/2"	23-1/4"	1/4"	Birch Plywood	E	Length

Assembly

Which parts join, and how

Part	Joins	Joinery	Each	Where
Base side ×2	Base bottom	Rabbet	1	at the left end
Base side ×2	Base top	Rabbet	1	at the right end
Base side ×2	Base back	Rabbet	1	on the top edge
Base toe-kick back rail	Base bottom	Kreg pocket screws 1-1/4" coarse	5	top edge
Base toe-kick front rail	Base bottom	Kreg pocket screws 1-1/4" coarse	5	top edge
Base toe-kick cross rail ×2	Base toe-kick back rail	Kreg pocket screws 1-1/4" coarse	2	back end
Base toe-kick cross rail ×2	Base toe-kick front rail	Kreg pocket screws 1-1/4" coarse	2	front end
Base drawer box side ×2	Base drawer box back	Rabbet	1	at the left end
Base drawer box side ×2	Base drawer box front	Rabbet	1	at the right end
Base drawer box side ×2	Base drawer box bottom	Groove	1	3-3/4" from the top edge
Base drawer box back	Base drawer box bottom	Groove	1	3-3/4" from the top edge
Base drawer box front	Base drawer box bottom	Groove	1	3-3/4" from the top edge
Base shelf	both Base sides	Shelf pins 1/4"	4	any hole in the rows

Joinery

From the left end and top edge as drawn in the diagrams

#	Part	Joint	Size	Where	Face
1	Base drawer box side ×2	Rabbet	1/2" wide × 1/4" deep	at the left end	Mirror pair
1	Base drawer box side ×2	Groove	1/4" wide × 1/4" deep	3-3/4" from the top edge	Mirror pair
1	Base drawer box side ×2	Rabbet	1/2" wide × 1/4" deep	at the right end	Mirror pair
2	Base drawer box back	Groove	1/4" wide × 1/4" deep	3-3/4" from the top edge	Inside
3	Base drawer box front	Groove	1/4" wide × 1/4" deep	3-3/4" from the top edge	Inside
5	Base side ×2	Rabbet	3/4" wide × 1/4" deep	at the left end	Mirror pair
5	Base side ×2	Rabbet	1/4" wide × 3/8" deep	on the top edge	Mirror pair
5	Base side ×2	Shelf pin holes	2 rows of 20, 1/4" holes 5/16" deep, every 1-1/4"	7-1/4" to 31-3/16" up from the floor, 1-7/16" in from the front and back edges	Mirror pair
5	Base side ×2	Rabbet	3/4" wide × 1/4" deep	at the right end	Mirror pair
11	Base toe-kick back rail	Pocket holes	5 for 1-1/4" coarse screws, Kreg 3/4" setting	on the top edge	Top
12	Base toe-kick front rail	Pocket holes	5 for 1-1/4" coarse screws, Kreg 3/4" setting	on the top edge	Underside
13	Base toe-kick cross rail ×2	Pocket holes	2 for 1-1/4" coarse screws, Kreg 3/4" setting	at the left end	Mirror pair
13	Base toe-kick cross rail ×2	Pocket holes	2 for 1-1/4" coarse screws, Kreg 3/4" setting	at the right end	Mirror pair
6	Base door	Hinge cups	2 × 35 mm, 1/2" deep	7/8" in from the left edge; 3" from the top (21-1/4" from the bottom), 21-1/4" from the top (3" from the bottom)	Inside

Hardware

Screws, hinges, knobs, drawer slides and shelf pins

Qty	Item	On parts
1	Drawer slides, 22" (559 mm), full-extension, side-mount (pair)	10
2	Hinges, 35 mm cup, full overlay, soft-close	6
2	Knobs	6, 10
18	Kreg pocket screws 1-1/4" coarse thread	
4	Shelf pins 1/4"	9

Leftovers

Usable offcuts after cutting

Piece	Length	Width	Thick	Material
Offcut A1	15-3/4"	4-1/2"	1/2"	Baltic Birch Plywood
Offcut A2	17-3/4"	4-1/2"	1/2"	Baltic Birch Plywood
Offcut A3	60"	50-3/4"	1/2"	Baltic Birch Plywood
Offcut B1	38-3/8"	21"	1/4"	Baltic Birch Plywood
Offcut B2	60"	38-7/8"	1/4"	Baltic Birch Plywood
Offcut C1	23"	1/8"	3/4"	Birch Plywood
Offcut C2	4"	4-3/8"	3/4"	Birch Plywood
Offcut C3	4"	4-3/8"	3/4"	Birch Plywood
Offcut C4	3-3/8"	23-1/4"	3/4"	Birch Plywood
Offcut C5	23"	3/4"	3/4"	Birch Plywood
Offcut C6	22-7/16"	3/4"	3/4"	Birch Plywood
Offcut C7	23-7/8"	17-3/4"	3/4"	Birch Plywood
Offcut C8	1-15/16"	23-7/8"	3/4"	Birch Plywood
Offcut C9	96"	5/8"	3/4"	Birch Plywood
Offcut D1	12-3/4"	4"	3/4"	Birch Plywood
Offcut D2	12-3/4"	4"	3/4"	Birch Plywood
Offcut D3	36-7/8"	2-1/2"	3/4"	Birch Plywood
Offcut E1	65-3/8"	23-1/4"	1/4"	Birch Plywood
Offcut E2	96"	24-5/8"	1/4"	Birch Plywood

Layout

Where each shelf and divider goes, from one edge

Mark mating parts together from the same reference edge, or use a story stick or a spacer block, so each pair matches even if your tape is off.

5 Base side: up from the bottom edge (30-1/2" long)

The other Base side has the same marks: mark them together.

#	Part	On	Bottom of shelf	Top of shelf
7	Base bottom	Right face	0"	3/4"
8	Base top	Right face	29-3/4"	30-1/2"

Shelf pin holes on the right face: 1/4" every 1-1/4", 3-1/4" to 27-3/16", 1-7/16" in from the front and back edges.



5 Base side: up from the bottom edge (30-1/2" long)

The other Base side has the same marks: mark them together.

#	Part	On	Bottom of shelf	Top of shelf
7	Base bottom	Left face	0"	3/4"
8	Base top	Left face	29-3/4"	30-1/2"

Shelf pin holes on the left face: 1/4" every 1-1/4", 3-1/4" to 27-3/16", 1-7/16" in from the front and back edges.



1 Base drawer box side: up from the bottom edge (4-1/2" long)

The other Base drawer box side has the same marks: mark them together.

#	Part	On	Bottom of shelf	Top of shelf
4	Base drawer box bottom	Right face	1/2"	3/4"



1 Base drawer box side: up from the bottom edge (4-1/2" long)

The other Base drawer box side has the same marks: mark them together.

#	Part	On	Bottom of shelf	Top of shelf
4	Base drawer box bottom	Left face	1/2"	3/4"



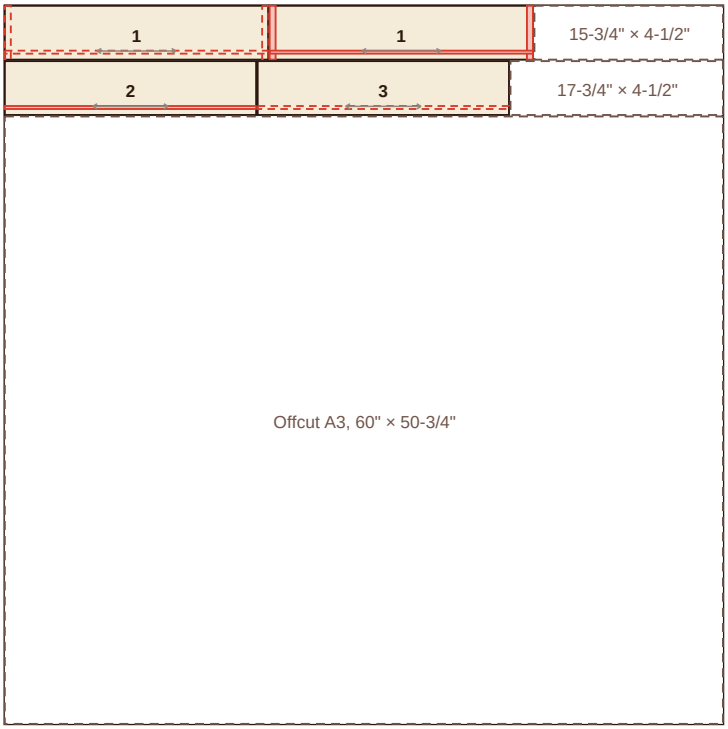
Bottom edge Top

Cutting diagrams

Grey gaps are saw kerf (1/8"). Red is joinery.

Sheet A 1/2" Baltic Birch Plywood, 5' × 5'

11% used



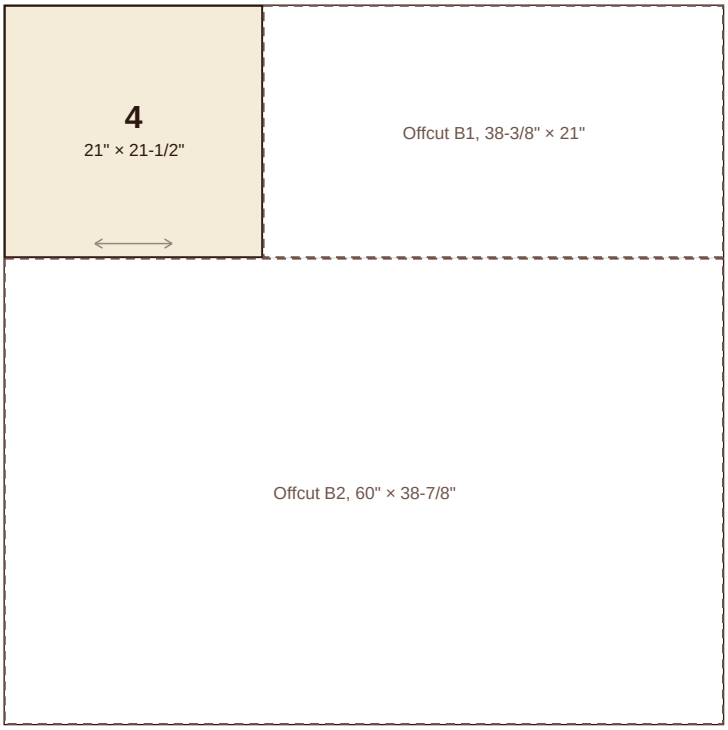
60" long, grain runs left to right

60" wide

1	Base drawer box side ×2	22" × 4-1/2"	**2**	Base drawer box back	21" × 4-1/2"
3	Base drawer box front	21" × 4-1/2"			

Sheet B 1/4" Baltic Birch Plywood, 5' × 5'

13% used



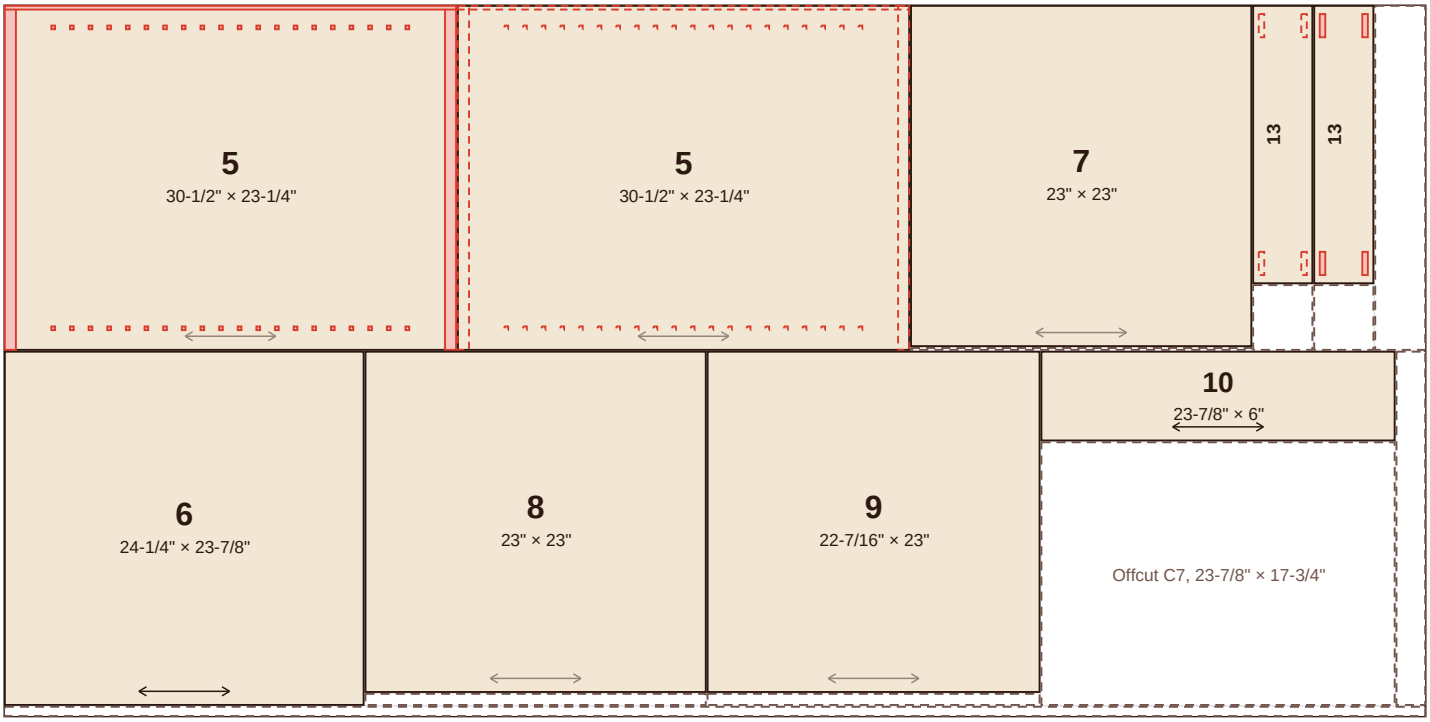
60" long, grain runs left to right

60" wide

4	Base drawer box bottom	21" × 21-1/2"

Sheet C 3/4" Birch Plywood, 4' × 8'

84% used



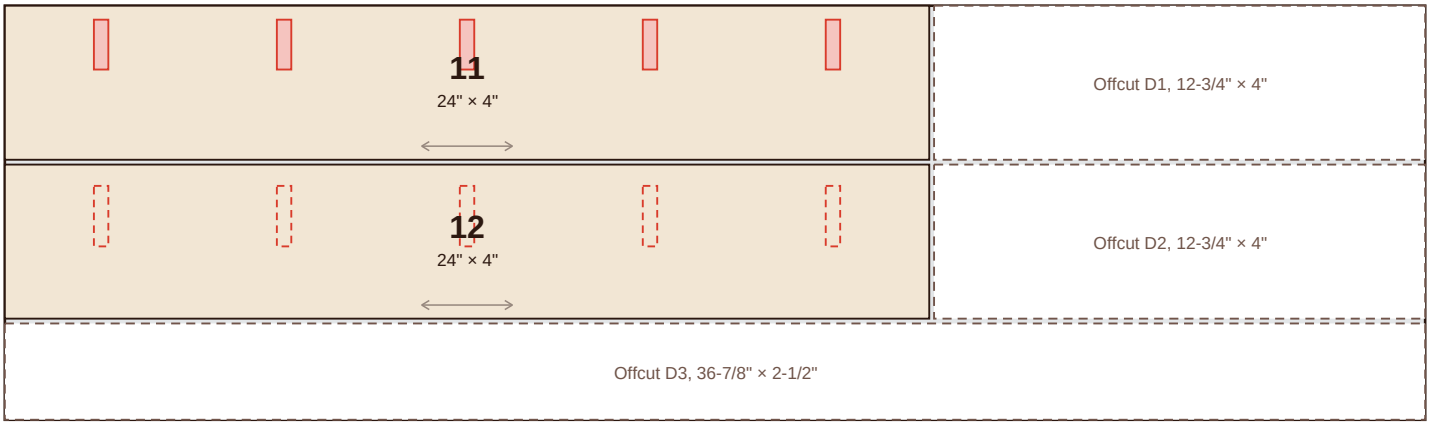
96" long, grain runs left to right

48" wide

5	Base side ×2	30-1/2" × 23-1/4"	**6**	Base door	24-1/4" × 23-7/8"
7	Base bottom	23" × 23"	**8**	Base top	23" × 23"
9	Base shelf	22-7/16" × 23"	**10**	Base drawer front	23-7/8" × 6"
13	Base toe-kick cross rail ×2	18-3/4" × 4"			

Sheet D 3/4" Birch Plywood, 10-3/4" × 3' 7/8"

48% used



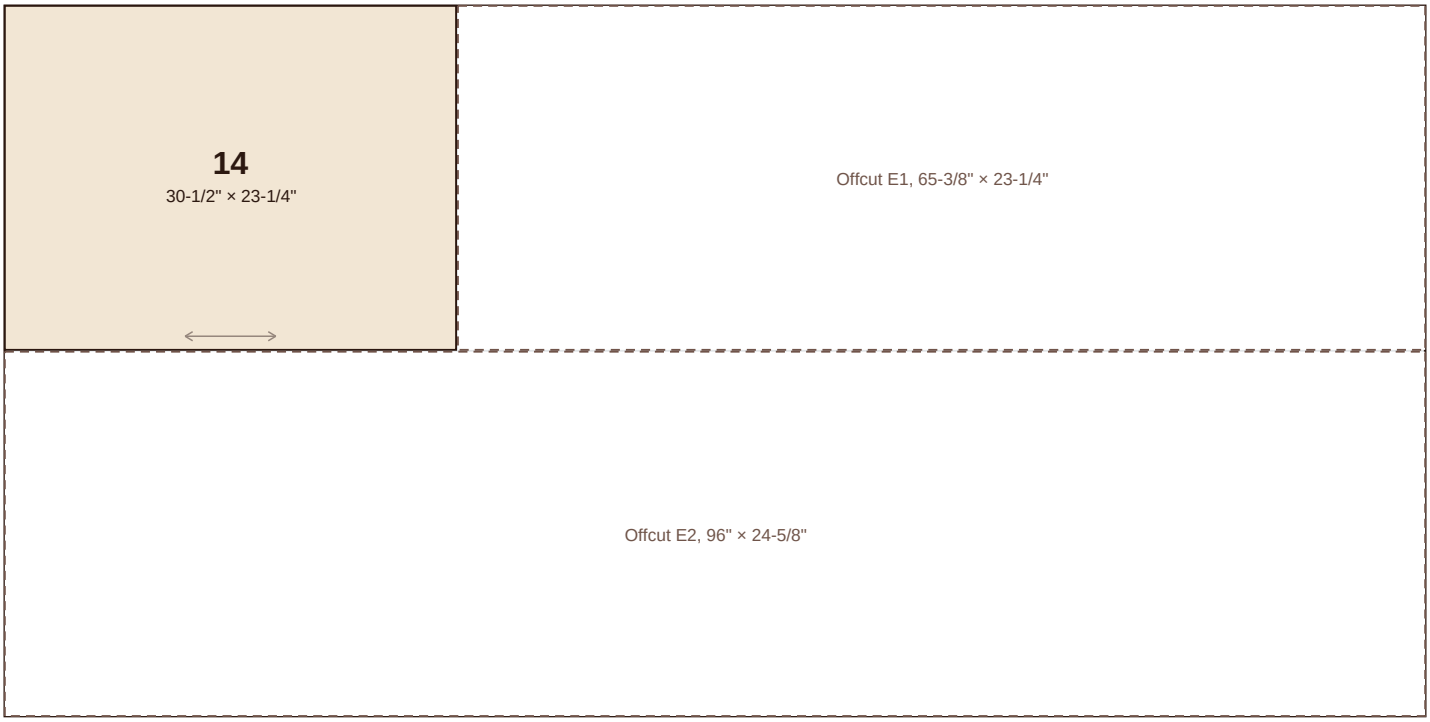
36-7/8" long, grain runs left to right

10-3/4" wide

11	Base toe-kick back rail	24" × 4"	**12**	Base toe-kick front rail	24" × 4"

Sheet E 1/4" Birch Plywood, 4' × 8'

15% used



96" long, grain runs left to right

48" wide

14 Base back 30-1/2" × 23-1/4"

Cut sequence

Check off each step as you go

- [ ] **1** Get Sheet A: 1/2" Baltic Birch Plywood, 5' × 5'.
- [ ] **2** From Sheet A, rip a strip 4-1/2" wide for Strip 1.
- [ ] **3** From Strip 1 (Sheet A), crosscut a piece 22" long for Base drawer box side.
- [ ] **4** From Strip 1 (Sheet A), crosscut a piece 22" long for Base drawer box side.
- [ ] **5** From Sheet A, rip a strip 4-1/2" wide for Strip 2.
- [ ] **6** From Strip 2 (Sheet A), crosscut a piece 21" long for Base drawer box back.
- [ ] **7** From Strip 2 (Sheet A), crosscut a piece 21" long for Base drawer box front.
- [ ] **8** Get Sheet B: 1/4" Baltic Birch Plywood, 5' × 5'.
- [ ] **9** With the track saw, from Sheet B, rip a strip 21" wide for Strip 1.
- [ ] **10** From Strip 1 (Sheet B), crosscut a piece 21-1/2" long for Base drawer box bottom.
- [ ] **11** Get Sheet C: 3/4" Birch Plywood, 4' × 8'.
- [ ] **12** With the track saw, from Sheet C, rip a strip 23-1/4" wide for Strip 1.
- [ ] **13** From Strip 1 (Sheet C), crosscut a piece 30-1/2" long for Base side.
- [ ] **14** From Strip 1 (Sheet C), crosscut a piece 30-1/2" long for Base side.
- [ ] **15** From Strip 1 (Sheet C), crosscut a piece 23" long for Base bottom.
- [ ] **16** With the track saw, from Base bottom (Sheet C), rip a strip 23" wide for Base bottom.
- [ ] **17** From Strip 1 (Sheet C), crosscut a piece 4" long for Base toe-kick cross rail.
- [ ] **18** With the track saw, from Base toe-kick cross rail (Sheet C), rip a strip 18-3/4" wide for Base toe-kick cross rail.
- [ ] **19** From Strip 1 (Sheet C), crosscut a piece 4" long for Base toe-kick cross rail.
- [ ] **20** With the track saw, from Base toe-kick cross rail (Sheet C), rip a strip 18-3/4" wide for Base toe-kick cross rail.
- [ ] **21** With the track saw, from Sheet C, rip a strip 23-7/8" wide for Strip 2.
- [ ] **22** From Strip 2 (Sheet C), crosscut a piece 24-1/4" long for Base door.
- [ ] **23** From Strip 2 (Sheet C), crosscut a piece 23" long for Base top.
- [ ] **24** With the track saw, from Base top (Sheet C), rip a strip 23" wide for Base top.
- [ ] **25** From Strip 2 (Sheet C), crosscut a piece 22-7/16" long for Base shelf.
- [ ] **26** With the track saw, from Base shelf (Sheet C), rip a strip 23" wide for Base shelf.
- [ ] **27** From Strip 2 (Sheet C), crosscut a piece 23-7/8" long for Base drawer front.
- [ ] **28** From Base drawer front (Sheet C), rip a strip 6" wide for Base drawer front.
- [ ] **29** Get Sheet D: 3/4" Birch Plywood, 10-3/4" × 3' 7/8".

- [ ] **30** From Sheet D, rip a strip 4" wide for Strip 1.
- [ ] **31** From Strip 1 (Sheet D), crosscut a piece 24" long for Base toe-kick back rail.
- [ ] **32** From Sheet D, rip a strip 4" wide for Strip 2.
- [ ] **33** From Strip 2 (Sheet D), crosscut a piece 24" long for Base toe-kick front rail.
- [ ] **34** Get Sheet E: 1/4" Birch Plywood, 4' × 8'.
- [ ] **35** With the track saw, from Sheet E, rip a strip 23-1/4" wide for Strip 1.
- [ ] **36** From Strip 1 (Sheet E), crosscut a piece 30-1/2" long for Base back.
- [ ] **37** In Base side, cut 3 rabbets to fit the mating parts (sizes under Joinery).
- [ ] **38** In Base side, cut 3 rabbets to fit the mating parts (sizes under Joinery).
- [ ] **39** In Base drawer box side, cut 2 rabbets and a groove to fit the mating parts (sizes under Joinery).
- [ ] **40** In Base drawer box side, cut 2 rabbets and a groove to fit the mating parts (sizes under Joinery).
- [ ] **41** In Base drawer box front, cut a groove to fit the mating parts (sizes under Joinery).
- [ ] **42** In Base drawer box back, cut a groove to fit the mating parts (sizes under Joinery).
- [ ] **43** In Base side, cut shelf pin holes to fit the mating parts (sizes under Joinery).
- [ ] **44** In Base side, cut shelf pin holes to fit the mating parts (sizes under Joinery).
- [ ] **45** In Base toe-kick front rail, cut 5 pocket holes (Kreg 3/4" setting) to fit the mating parts (sizes under Joinery).
- [ ] **46** In Base toe-kick back rail, cut 5 pocket holes (Kreg 3/4" setting) to fit the mating parts (sizes under Joinery).
- [ ] **47** In Base toe-kick cross rail, cut 2 pocket holes (Kreg 3/4" setting) to fit the mating parts (sizes under Joinery).
- [ ] **48** In Base toe-kick cross rail, cut 2 pocket holes (Kreg 3/4" setting) to fit the mating parts (sizes under Joinery).
- [ ] **49** In Base toe-kick cross rail, cut 2 pocket holes (Kreg 3/4" setting) to fit the mating parts (sizes under Joinery).
- [ ] **50** In Base toe-kick cross rail, cut 2 pocket holes (Kreg 3/4" setting) to fit the mating parts (sizes under Joinery).
- [ ] **51** Bore 2 hinge cups in Base door: 35 mm across, 1/2" deep, 7/8" in from the left edge to the centre, 3" and 21-1/4" from the top.

Setup sheets

Set each machine once, then make every cut on its list

Setup 1 Get the stock

- [ ] Sheet A: 1/2" Baltic Birch Plywood, 5' × 5' — step 1
- [ ] Sheet B: 1/4" Baltic Birch Plywood, 5' × 5' — step 8
- [ ] Sheet C: 3/4" Birch Plywood, 4' × 8' — step 11
- [ ] Sheet D: 3/4" Birch Plywood, 10-3/4" × 3' 7/8" — step 29
- [ ] Sheet E: 1/4" Birch Plywood, 4' × 8' — step 34

Setup 2 Track saw: rip to 23-1/4"

Set the parallel guides at 23-1/4", or mark 23-1/4" from the edge at both ends and lay the track's edge on the marks.

- [ ] Sheet C: a strip for Base side — #5 step 12
- [ ] Sheet E: a strip for Base back — #14 step 35

Setup 3 Track saw: rip to 23-7/8"

Set the parallel guides at 23-7/8", or mark 23-7/8" from the edge at both ends and lay the track's edge on the marks.

- [ ] Sheet C: a strip for Base door — #6 step 21

Setup 4 Track saw: rip to 21"

Set the parallel guides at 21", or mark 21" from the edge at both ends and lay the track's edge on the marks.

- [ ] Sheet B: a strip for Strip 1 — step 9

Setup 5 Table saw: rip fence at 4-1/2"

Measure from the fence to the nearest tooth of the blade, and make a test cut in scrap.

- [ ] Sheet A: a strip for Base drawer box side — #1 step 2
- [ ] Sheet A: a strip for Base drawer box back and Base drawer box front — #2, #3 step 5

Setup 6 Table saw: rip fence at 4"

Measure from the fence to the nearest tooth of the blade, and make a test cut in scrap.

- [ ] Sheet D: a strip for Base toe-kick back rail — #11 step 30
- [ ] Sheet D: a strip for Base toe-kick front rail — #12 step 32

Setup 7 Table saw: crosscut sled, stop at 24-1/4"

Clamp a stop block on the sled's fence 24-1/4" from the kerf, and square one end of each piece first.

- [ ] Strip 2 (Sheet C): a piece for Base door — #6 step 22

Setup 8 Table saw: crosscut sled, stop at 24"

Clamp a stop block on the sled's fence 24" from the kerf, and square one end of each piece first.

- [ ] Strip 1 (Sheet D): a piece for Base toe-kick back rail — #11 step 31
- [ ] Strip 2 (Sheet D): a piece for Base toe-kick front rail — #12 step 33

Setup 9 Table saw: crosscut sled, stop at 21-1/2"

Clamp a stop block on the sled's fence 21-1/2" from the kerf, and square one end of each piece first.

- [ ] Strip 1 (Sheet B): a piece for Base drawer box bottom — #4 step 10

Setup 10 Table saw: crosscut sled, stop at 30-1/2"

Clamp a stop block on the sled's fence 30-1/2" from the kerf, and square one end of each piece first.

- [ ] Strip 1 (Sheet C): a piece for Base side — #5 step 13
- [ ] Strip 1 (Sheet C): a piece for Base side — #5 step 14
- [ ] Strip 1 (Sheet E): a piece for Base back — #14 step 36

Setup 11 Table saw: crosscut sled, stop at 23"

Clamp a stop block on the sled's fence 23" from the kerf, and square one end of each piece first.

- [ ] Strip 1 (Sheet C): a piece for Base bottom — #7 step 15
- [ ] Strip 2 (Sheet C): a piece for Base top — #8 step 23

Setup 12 Track saw: rip to 23"

Set the parallel guides at 23", or mark 23" from the edge at both ends and lay the track's edge on the marks.

- [ ] Base bottom (Sheet C): a strip for Base bottom — #7 step 16
- [ ] Base top (Sheet C): a strip for Base top — #8 step 24

Setup 13 Table saw: crosscut sled, stop at 22-7/16"

Clamp a stop block on the sled's fence 22-7/16" from the kerf, and square one end of each piece first.

- [ ] Strip 2 (Sheet C): a piece for Base shelf — #9 step 25

Setup 14 Track saw: rip to 23"

Same setting as setup 12.
Set the parallel guides at 23", or mark 23" from the edge at both ends and lay the track's edge on the marks.

- [ ] Base shelf (Sheet C): a strip for Base shelf — #9 step 26

Setup 15 Table saw: crosscut sled, stop at 23-7/8"

Clamp a stop block on the sled's fence 23-7/8" from the kerf, and square one end of each piece first.

- [ ] Strip 2 (Sheet C): a piece for Base drawer front — #10 step 27

Setup 16 Table saw: rip fence at 6"

Measure from the fence to the nearest tooth of the blade, and make a test cut in scrap.

- [ ] Base drawer front (Sheet C): a strip for Base drawer front — #10 step 28

Setup 17 Table saw: crosscut sled, stop at 22"

Clamp a stop block on the sled's fence 22" from the kerf, and square one end of each piece first.

- [ ] Strip 1 (Sheet A): a piece for Base drawer box side — #1 step 3
- [ ] Strip 1 (Sheet A): a piece for Base drawer box side — #1 step 4

Setup 18 Table saw: crosscut sled, stop at 21"

Clamp a stop block on the sled's fence 21" from the kerf, and square one end of each piece first.

- [ ] Strip 2 (Sheet A): a piece for Base drawer box back — #2 step 6
- [ ] Strip 2 (Sheet A): a piece for Base drawer box front — #3 step 7

Setup 19 Table saw: crosscut sled, stop at 4"

Clamp a stop block on the sled's fence 4" from the kerf, and square one end of each piece first.

- [ ] Strip 1 (Sheet C): a piece for Base toe-kick cross rail — #13 step 17
- [ ] Strip 1 (Sheet C): a piece for Base toe-kick cross rail — #13 step 19

Setup 20 Track saw: rip to 18-3/4"

Set the parallel guides at 18-3/4", or mark 18-3/4" from the edge at both ends and lay the track's edge on the marks.

- [ ] Base toe-kick cross rail (Sheet C): a strip for Base toe-kick cross rail — #13 step 18
- [ ] Base toe-kick cross rail (Sheet C): a strip for Base toe-kick cross rail — #13 step 20

Setup 21 Table saw: dado stack 1/4" wide, 1/4" high

The two outside blades alone.
Blade 1/4" above the table. Fence to the near side of the cut, as each row says. Test the fit in scrap first.

- [ ] Base drawer box side ×2: groove 1/2" from the bottom edge — #1 steps 39, 40
- [ ] Base drawer box back: groove 1/2" from the bottom edge — #2 step 42
- [ ] Base drawer box front: groove 1/2" from the bottom edge — #3 step 41

Setup 22 Table saw: rabbet 3/4" wide, blade 1/4" high

A dado stack 13/16" wide: both outside blades, four 1/8" chippers and a 1/16" chipper.
Bury it in a sacrificial fence so 3/4" of it shows, and raise it 1/4" above the table.

- [ ] Base side ×2: rabbet at the left end — #5 steps 37, 38
- [ ] Base side ×2: rabbet at the right end — #5 steps 37, 38

Setup 23 Table saw: rabbet 1/2" wide, blade 1/4" high

A dado stack 9/16" wide: both outside blades, two 1/8" chippers and a 1/16" chipper.
Bury it in a sacrificial fence so 1/2" of it shows, and raise it 1/4" above the table.

- [ ] Base drawer box side ×2: rabbet at the left end — #1 steps 39, 40
- [ ] Base drawer box side ×2: rabbet at the right end — #1 steps 39, 40

Setup 24 Table saw: rabbet 1/4" wide, blade 3/8" high

A dado stack 5/16" wide: both outside blades and a 1/16" chipper.
Bury it in a sacrificial fence so 1/4" of it shows, and raise it 3/8" above the table.

- [ ] Base side ×2: rabbet on the top edge — #5 steps 37, 38

Setup 25 Kreg pocket-hole jig: jig at 3/4"

Set the drill guide and the bit's stop collar for 3/4" stock.
Screws: 1-1/4" coarse.

- [ ] Base toe-kick back rail: 5 pocket holes on the top edge, on the face — #11 step 46
- [ ] Base toe-kick front rail: 5 pocket holes on the top edge, on the back — #12 step 45
- [ ] Base toe-kick cross rail: 2 pocket holes at the left end, on the back — #13 step 47
- [ ] Base toe-kick cross rail: 2 pocket holes at the left end, on the face — #13 step 49
- [ ] Base toe-kick cross rail: 2 pocket holes at the right end, on the back — #13 step 48
- [ ] Base toe-kick cross rail: 2 pocket holes at the right end, on the face — #13 step 50

Setup 26 Shelf pin jig: 1/4" holes every 1-1/4"

A 1/4" bit with its stop collar at 11/32" deep.
The rows 1-15/32" in from the front and back edges.
Index the jig off the bottom of each part so the rows line up across the case.

- [ ] Base side ×2: two rows of 20, 7-9/32" to 31-7/32" up from the floor — #5 steps 43, 44

Setup 27 Drill press or hinge jig: 35 mm cups, 15/32" deep

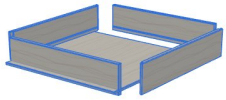
A 35 mm Forstner bit. The fence so the cup's centre is 7/8" in from the edge: a 3/16" boring distance.
The depth stop at 15/32". Bore a test cup in scrap and check the hinge.

- [ ] Base door: 2 cups on the left edge, 3" and 21-1/4" from the top — #6 step 51

Assembly steps

The order it goes together

You need at least 4 clamps of 36".



1 Glue up Base drawer box

Parts Base drawer box side ×2 (part 1), Base drawer box back (part 2), Base drawer box front (part 3), Base drawer box bottom (part 4)

Order Start with Base drawer box side. Add Base drawer box back, Base drawer box bottom and Base drawer box front. Close it with Base drawer box side.

Joints Base drawer box side and Base drawer box back: 2 rabbets, glue

Base drawer box side and Base drawer box front: 2 rabbets, glue

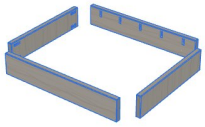
Base drawer box side and Base drawer box bottom: 2 grooves, no glue, it floats

Base drawer box back and Base drawer box bottom: 1 groove, no glue, it floats

Base drawer box front and Base drawer box bottom: 1 groove, no glue, it floats

Glue Glue every joint. Base drawer box bottom floats in its grooves: no glue on it.

Clamps 2 clamps of 24".



2 Screw together Base toe-kick

Parts Base toe-kick back rail (part 11), Base toe-kick front rail (part 12), Base toe-kick cross rail ×2 (part 13)

Joints Base toe-kick cross rail and Base toe-kick back rail: 4 Kreg pocket screws 1-1/4" coarse thread, no glue

Base toe-kick cross rail and Base toe-kick front rail: 4 Kreg pocket screws 1-1/4" coarse thread, no glue

Glue No glue: the pocket screws hold it.

Clamps No clamps.



3 Glue up Base

Parts Base side ×2 (part 5), Base bottom (part 7), Base top (part 8)

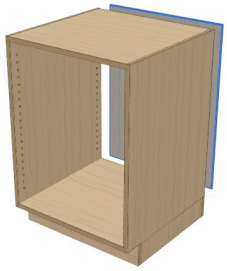
Order Start with Base side. Add Base bottom and Base top. Close it with Base side.

Joints Base side and Base bottom: 2 rabbets, glue

Base side and Base top: 2 rabbets, glue

Glue Glue every joint.

Clamps 4 clamps of 36".



4 Back on Base

Parts Base back (part 14)

Glue Glue in the rabbets, then brads every 6" into the sides and the back edges of what it covers. Square the case first: the back holds it.

Clamps No clamps.



5 Screw Base toe-kick to Base

Parts Base bottom (part 7), Base toe-kick back rail (part 11), Base toe-kick front rail (part 12), Base toe-kick cross rail ×2 (part 13)

Joints Base toe-kick back rail and Base bottom: 5 Kreg pocket screws 1-1/4" coarse thread, no glue

Base toe-kick front rail and Base bottom: 5 Kreg pocket screws 1-1/4" coarse thread, no glue

Glue No glue: the pocket screws hold it.

Clamps No clamps.



6 Hang the door

Parts Base door (part 6)

What Base door: 2 hinges into the cups, hung on the left.

Glue No glue.

Clamps No clamps.

Screw the mounting plates to the case, press each hinge into its cup and screw it, clip the door on, then set the gaps even with the hinges' screws.



7 Fit the drawer

Parts Base drawer front (part 10), each with its drawer box

What Base drawer front: Drawer slides, 22" (559 mm), full-extension, side-mount (pair)

Glue No glue.

Clamps No clamps.

Screw the slides to the case sides and the drawer box sides at the same heights, set each box in, then screw its front on from inside the box with the gaps even.



8 Knobs

Parts Base door (part 6), Base drawer front (part 10)
What 2 knobs on 2 fronts.
Glue No glue.
Clamps No clamps.
Drill from the front with a block clamped behind, so the back face doesn't tear out.



9 Shelf on its pins

Parts Base shelf (part 9)
What 4 shelf pins.
Glue No glue.
Clamps No clamps.
Push the pins into the holes at the same height each side, then set the shelf on them.